

**BackWoods Wireless  
302 Blandon Meadows Parkway  
Blandon, PA 19510**

09/13/10

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: TV White Spaces  
ET Docket Nos. 04-186 and 02-380

Dear Ms. Dortch:

My company, BackWoods Wireless, provides fixed-wireless broadband consulting and we are located outside of Reading, Pennsylvania. I have previously worked for a fixed-wireless broadband provider in Northern Virginia (NoVA/DC area). We rely primarily on using unlicensed spectrum to deliver broadband services to consumers that have few, as well as cost-effective, broadband choices. We build our networks using devices authorized under Part 15 rules the FCC adopted to open up 900 MHz, 2.4 GHz and 5 GHz spectrum for unlicensed broadband devices. Thanks to the Commission's new initiatives, consumers in the Berks County area of Pennsylvania will be able to get broadband service.

BackWoods Wireless is very interested in utilizing television white spaces so that service can be provided to under-served areas. The only providers currently in this area are the incumbent telcos (Verizon, Frontier), cable (Comcast, Service Electric Cablevision) and some local and regional ISPs. We are committed to assisting WISPs and ISPs to deploy, as soon as equipment for point-to-multipoint service is commercially available.

I am pleased that the FCC will be acting on TV white space petitions for reconsideration in the near future. There are several proposals that would help us to deploy service:

First, the FCC should allow WISPs to operate using base station antennas mounted higher than 30 meters, and we should be allowed to install customer antennas (CPE) at heights below 10 meters. If we could increase our base station antenna height to 100 meters, we could cover three times more area with a base station and reduce our equipment, tower acquisition and tower lease fees by a large amount - an amount that could be the difference between deploying or not deploying in an area. We support the WISPA and Motorola proposals to increase base station height. By removing any minimum CPE height restrictions, we would not have to put tall masts on residences and we would be able to provide service at a lower cost.

Second, we believe we should be allowed to operate with power in excess of 4 Watts EIRP in rural areas. As is the case with tower height, operating with higher power will

give us a greater coverage area and we will not need to spend as much money on infrastructure.

Third, we are very concerned about a proposal made by FiberTower and others to license white space spectrum for point-to-point wireless backhaul. Not only would adopting this proposal take six channels (36 MHz) and perhaps more channels away from us, but WISPs also would have to protect these licensed links. Moreover, channels and areas far beyond the links would be blocked because the signals from the licensed links would overshoot the path and the endpoints. This is due to the low-coast, low-gain antennas FiberTower wants to use. We also would not deploy if a licensed point-to-point user could come along later and put us out of business with a licensed link. We support the views expressed by WISPA in their September 8 letter and ask the FCC to reject the FiberTower proposal.

It is our opinion that TV Whitespaces should not be used for point-to-point backhauls; the amount of available spectrum does not warrant it, even if used with high-gain, directional antennas. There are other bands more suited for this. Also, having implemented 900 MHz connectivity in the Northern Virginia area, where it is wooded and hilly, the 4 Watt power restrictions hampered our deployments as well as interference from and around the 900 MHz allocation. Berks County, PA, is similar to Northern Virginia in topography, with hills and foliage, and the TV Whitespaces is a way to improve the penetration of broadband services in this and other under-served areas. Our area is unique that we can receive three TV markets; Philadelphia, Harrisburg-Lancaster-York, and Wilkes-Barre/Scranton. Being able to utilize these frequencies is going to be paramount to being successful and competing with the incumbents.

We are also in favor of the "*lite-licensed*" scheme as implemented in the 3650 MHz band.

Being an amateur radio operator for 40 years, hold an FCC General Radiotelephone License (previously Second-Class Radiotelephone) and a iNARTE Master Certified Engineer for over 25 years makes me uniquely qualified. I hope the Commission will make a rapid decision on this proceeding so we can move forward with getting broadband deployed.

Sincerely,

Leon D. Zetekoff, NCE  
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